RESPIRATORY-RELATED DISORDERS—Cost Studies

PRS7

THE TREATMENT OF MODERATE TO SEVERE PERSISTENT ASTHMA IN SELECTED AUTONOMOUS COMMUNITIES IN SPAIN: AN ECOMIC MODEL TO ESTIMATE BUDGET IMPACT CONSEQUENCES OF INTRODUCING BECLOMETHASONE/ FORMOTEROL

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OBJECTIVES: A budget impact model (BIM) was developed to estimate the economic impact of introducing beclomethasone/ formoterol extrafine for the treatment of moderate to severe persistent asthma in most important Autonomous Communities in Spain. **METHODS:** Analytic model was based on data from disease prevalence, population growth, drug consumption, retail prices and market shares forecasting for most representative Autonomous Communities in Spain: Andalusia, Catalonia, Madrid, Vasc Country and Valencia. It takes the perspective of the Spanish National Pharmaceutical budget and time horizon considered was 5 years (5% annual discount rate). Drugs considered in the study were fluticasone/salmeterol, budesonide/ formoterol and beclomethasone/formoterol extrafine. The model estimates the annual cost to treat patients with moderate to severe persistent asthma before and after the introduction of beclomethasone/formoterol extrafine. Costs are referred to year 2008. **RESULTS:** According to demographic forecasts and asthma prevalence, target population with moderate to severe persistent asthma treated with fixed dose combinations would be around 104,634 patients in year 2007 in Andalusia, 54,362 in Catalonia, 36,727 in Madrid, 16,311 the Vasc Country and 35,132 in Valencia. On average, cost per patient was estimated at €982 before the introduction of beclomethasone/formoterol extrafine on the Spanish pharmaceutical market and at €964 after its introduction. **CONCLUSIONS:** This study estimates that the introduction of beclomethasone/formoterol extrafine for the treatment of moderate to severe persistent asthma on different Autonomous Communities is going to represent a net savings in the pharmaceutical budget during the next 5 years of around €11 million in Andalusia, €5.8 million in Catalonia, €4 million in Madrid, €1.7 in the Vasc Country and €3.9 in Valencia.

PRS8

TOTAL COSTS OF TOBACCO FOR SOCIETY—WHAT ARE THE RETURNS ON INVESTMENTS FOR DIFFERENT GOVERNMENTAL INTERVENTIONS?

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OBJECTIVES: Tobacco use is a significant cause of morbidity with consequent marked economic burden. So far, smoking cessation (SC) medications are not reimbursed in Finland. We evaluated the current and future costs of smoking related diseases for society and the potential returns for investments in SC. **METHODS:** We estimated minimum and maximum smoking attributable proportions of relevant diseases from literature. Comprehensive population based Finnish registry data was combined to evaluate major expenditures (health care costs, sick-leave compensations, disability pensions, and loss of productivity) in 2006 euros from 1996 to 2006. Future expenses were extrapolated from relevant data and the influence of SC assessed in models with several survival patterns. Models were fitted with three SC medications with different efficacies (A = 5%, B = 10% and C = 20% success) and one-time costs (starting from A = €100, B = €200, C = €300 per patient). Return on investment for government provided drug administration to 20 000 patients from 2008 to 2017 was calculated for all options. **RESULTS:** In the minimum tobacco influence scenario, total annual societal costs of smoking attributed morbidities were €290M with health care costs of €145M (year 2006). This scenario yielded an increase in real total costs to €376M by 2030. Respective estimations in maximum scenario were €554M, €280M and €717M. By subsidizing a free withdrawal drug delivery for 10 years, the government incurred a cost of €2.3M (A) €4.5 (B) and €6.8M (C), but received net present value (NPV) of €29M (A), €57M (B) and €130M (C), through savings from decreased health related expenditures (5% discount rate used). Values in the maximum scenarios were €66M, €131M and €227M. Tobacco tax was not included in the analysis. **CONCLUSIONS:** The costs of smoking for society are projected to increase during the near future. Our models show that subsidy of SC drugs is a sound investment.

PRS9

COST-EFFECTIVENESS MODEL OF MOXIFLOXACIN IN ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS (AECB) IN GERMANY INCLUDING THE EFFECTS OF RESISTANCE

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OBJECTIVES: To evaluate the cost-effectiveness of the empirical oral moxifloxacin treatment in Acute Exacerbation of Chronic Bronchitis (AECB) including clinical failure caused by antimicrobial resistance in Germany. **METHODS:** A decision analytic model was developed in AECB to estimate clinical success and failure of oral antimicrobial treatment initiated in the community. Three common pathogens, S.pneumoniae, H.influenzae, and P.aeruginosa (and other gram-negative) were included using their relative frequencies. Resistance rates were obtained from literature. A pooled analysis of seven randomised clinical trials provided all clinical evidence for moxifloxacin, macrolides and beta-lactams, using results from the per-protocol population as representative of non-resistant efficacy and intent-to-treat population in sensitivity analyses. Natural host resolution from